

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Currently Amended) A method for treatment of a malignant tumor and prevention or treatment of Graft Versus Host Disease (GVHD) induced by donor lymphocyte infusion in a patient, the method comprising:

(A) performing donor lymphocyte infusion (DLI) in a patient having a malignant tumor;

(B) then performing:

(i) radiation treatment (irradiation),

(ii) infusion of lymphocytes derived from the ~~host-patient~~ or derived from a third party ~~having the~~ with an identical HLA type as the patient host (HLI), and

(iii) intra bone marrow-bone marrow transplantation (IBM-BMT) using bone marrow cells derived from the patient host or derived from a third party ~~having the~~ with an identical HLA type as the patient host.

Claim 2. (Canceled).

Claim 3. (Previously Presented) The method of Claim 1, wherein a first radiation treatment is performed prior to the donor lymphocyte infusion.

Claim 4. (Previously Presented) The method of Claim 1, wherein the DLI is performed by intravenous administration of an effective amount of donor-derived peripheral blood mononuclear cells.

Claim 5. (Previously Presented) The method of Claim 1, wherein said radiation treatment is performed by total body irradiation at a dose of 3-4 Gy.

Claim 6. (Currently Amended) The method of Claim 1, wherein the HLI is performed by intravenous administration of an effective amount of peripheral blood mononuclear cells derived from the patient host or derived from a third party ~~having the~~ with an identical HLA type as the patient host.

Claim 7. (Currently Amended) The method of Claim 1, wherein the bone marrow cells are whole bone marrow cells derived from the patient host or derived from a third party ~~having the~~ with an identical HLA type as the patient host.

Claim 8. (Currently Amended) The method of Claim 7, wherein the whole bone marrow cells are obtained by inserting a bone marrow puncture needle into one end of a long bone of the patient host or of the third party, causing an irrigating fluid to flow via the needle through the medullary cavity, and recovering the irrigating fluid containing bone marrow cells from a perforation provided at the other end of the long bone.

Claim 9. (Currently Amended) The method of Claim 1, wherein the IBM-BMT is performed by administration, into a long bone, of an effective amount of whole bone marrow cells derived from the patient ~~host~~ or the third party.

Claim 10. (Currently Amended) A method for treatment of a malignant tumor and prevention or treatment of Graft Versus Host Disease (GVHD) induced by donor lymphocyte infusion in a patient, the method comprising:

- (A) performing donor lymphocyte infusion (DLI) in a patient having a malignant tumor; and
- (B) then performing:
 - (i) radiation treatment (irradiation), and
 - (ii) intravenous administration of peripheral blood stem cells derived from the ~~host~~ patient or derived from a third party ~~having the~~ with an identical ~~in~~ HLA type to the ~~host~~ patient.

Claim 11. (Previously Presented) The method of Claim 1, wherein the malignant tumor is selected from the group consisting of leukemia, malignant lymphoma, multiple myeloma, sarcoma, melanoma, brain tumor, stomach cancer, tongue cancer, esophageal carcinoma, colorectal cancer, liver cancer, gallbladder carcinoma, pancreatic carcinoma, renal carcinoma, bladder cancer, nasopharyngeal cancer, laryngeal cancer, skin cancer, mammary cancer, testicular cancer, ovarian cancer, uterus carcinoma, and lung cancer.

Claim 12. (Currently Amended) A pharmacological composition for use in the malignant tumor treatment method as defined in Claim 1 ~~which comprises, wherein:~~

- (1) in step (A), a composition containing donor-derived peripheral blood mononuclear cells, is infused,
- (2) in step (B)(ii), a composition containing peripheral blood mononuclear cells derived from the ~~host-patient~~ or derived from the third party ~~having the~~with an identical HLA type as the patient, ~~host~~ is infused, and
- (3) in step (B)(iii), a composition containing whole bone marrow cells derived from the ~~host-patient~~ or derived from the third party ~~having the~~with an identical HLA type as the ~~host~~patient, is transplanted.

Claim 13. (Currently Amended) A method for prevention or treatment of a graft versus host disease induced by donor lymphocyte infusion in a patient, the method comprising performing, in said patient:

- (A) radiation treatment (irradiation),
- (B) infusion of lymphocytes derived from the ~~host-patient~~ or derived from a third party ~~having the~~with an identical HLA type as the ~~host~~patient, and
- (C) intra bone marrow-bone marrow transplantation using bone marrow cells derived from the ~~host-patient~~ or derived from a third party ~~having the~~with an identical HLA type as the ~~host~~patient,

wherein the method prevents or treats graft versus host disease induced by donor lymphocyte infusion in the patient.

Claim 14. (Currently Amended) A pharmacological composition for use in the method for the prevention and treatment of the graft versus host disease induced by donor lymphocyte infusion as defined in Claim 13 ~~which comprises,~~ wherein:

(1) in step (B), a composition containing peripheral blood mononuclear cells derived from the ~~host~~ patient or derived from the third party ~~having the~~ with an identical HLA type as the ~~host~~ patient, is infused, and

(2) in step (C), a composition containing whole bone marrow cells derived from the ~~host~~ patient or derived from the third party ~~having the~~ with an identical HLA type as the ~~host~~ patient is transplanted.